WHAT IS CLAIMED IS:

1. A test strip comprising a support having thereon a non-sampling area and a sampling area wherein said sampling area further comprises a sampling layer which can react with a target species to form or release a signal compound which is capable of effecting a reaction with silver halide to form a latent image, and a signal amplification layer comprising silver halide.

2. The test strip of claim 1 further comprising a protective layer covering at least the sampling area.

3. The test strip of claim 1 further comprising a release layer.

4. The test strip of claim 1 herein the support is polyethylene terephthalate.

5. The test strip of claim 1 wherein the sampling area is surrounded by the non-sampling area

6. The test strip of claim 1 wherein the sampling area is located at one edge portion of the test strip.

7. The test strip of claim 2 wherein the protective layer is light blocking.

8. The test strip of claim 2 wherein the protective layer is removable.

9. The test strip of claim 8 wherein the protective layer is light blocking.

10. The test strip of claim 8 wherein the protective layer is replaceable after being removed.

11. The test strip of claim 1 further comprising prerecorded data which is visually readable and/or machine readable.

12. The test strip of claim 1 further comprising a blocking layer on the opposite side of the support from the sampling area.

13. The test strip of claim 12 further wherein the blocking layer on the opposite side of the support is light blocking.

14. The test strip of claim 12 wherein the blocking layer on the opposite side of the support is removable.

15. The test strip of claim 14 wherein the blocking layer on the opposite side of the support is replaceable after being removed.

16. The test strip of claim 1 wherein the non-sampling area is suitable for recording data.

17. The test strip of claim 1 wherein the support is opaque.

18. The test strip of claim 1 wherein the sampling area can detect more than one type of target species.

19. The test strip of claim 1 wherein the sampling area further comprises an additional layer which blocks electromagnetic radiation which is capable of exposing the silver halide and which is located between the sampling layer and the silver halide amplification layer.

20. The test strip of claim 1 wherein the signal compound can react with a secondary compound contained in the silver halide layer which can then react with the silver halide to form a latent image.

21. The test strip of claim 1 wherein the signal compound can react with the silver halide to form a latent image.

22. The test strip of claim 1 wherein the sampling layer also blocks electromagnetic radiation which is capable of exposing the silver halide.

23. The test strip of claim 1 wherein the silver halide layer contains a dye image forming coupler.

24. The test strip of claim 19 wherein the light blocking layer is diffusible.

25. The test strip claim 2 wherein the protective layer is diffusible to the target species.

26. The test strip of claim 19 wherein the light-blocking layer is opaque.

27. The test strip of claim 1 wherein the silver halide is sensitized.

28. The test strip of claim 1 wherein the signal compound is capable of effecting a reaction through a chemical cascade.

29. The test strip of claim 1 wherein the signal compound is formed through a chemical cascade reaction.

30. The test strip of claim 1 wherein the signal compound is capable of effecting a reaction with the silver halide by reacting with the light-blocking layer to effect a reaction with silver halide to form a latent image.

31. The test strip of claim 1 wherein the sampling layer and the signal amplification layer comprising silver halide are the same layer.

32. The test strip of claim 1 wherein the target species is E. coli.

33. The test strip of claim 1 wherein the sampling area further comprises a filter layer.

34. The test strip of claim 1 wherein the silver halide amplification layer comprises silver halide that upon LIFCS exposure provides a latent image in exposed grains that are capable of acting as a catalyst for the subsequent formation of a silver image in a development step, (b) a non-LIFCS sensitive source of reducible silver ions, (c) a reducing composition for the reducible silver ions, and (d) a hydrophilic or hydrophobic binder.

35. A method of detecting a target species comprising contacting the test strip of claim 1 with the material to be tested and allowing the silver halide to form a latent image.

36. The method of claim 35 further comprising the step of developing the latent image to form a detectable signal.

37. The method of claim 35 wherein the detectable signal is measurable.

38. The method of claim 35 wherein the latent image is developed by heat.

39. The method of claim 35 wherein the latent image is developed by chemical processing.

40. The method of claim 36 wherein the developer is applied using an applicator

41. The method of claim 36 further comprising reading the signal.

42. The method of claim 41 wherein the signal is read visually.

43. The method of claim 41 wherein the signal is read by a densitometer.

44. The method of claim 41 wherein the test strip is electronically scanned.

45. The method of claim 44 wherein the results of the electronic scan are analyzed using a computer.

46. The method of claim 35 wherein the test strip is placed in contact with a test object.

47. The method of claim 35 wherein the test object is contacted with a transfer device and the transfer device is placed in contact with the test strip.

48. The method of claim 35 wherein the test strip comprises a protective layer and the protective layer is removed during testing and then replaced.

49. The method of claim 48 wherein the protective layer is light blocking.

50. The method of claim 36 wherein the test strip further comprises a blocking layer on the opposite side of the support from the sampling

area and wherein the developed test strip is viewed through the support by removing the blocking layer.

51. The method of claim 50 wherein the blocking layer is opaque.

52. A kit comprising a developing device and the test strip of claim 1.

53. The kit of claim 52 further comprising a transfer device.

54. The kit of claim 53 wherein the transfer device is a swab or a device for transferring liquid.

55. The kit of claim 52 wherein the developing device is a heat developing apparatus.

56. The kit of claim 52 wherein the developing device is an applicator for chemical developer.

57. The kit of claim 52 comprising multiple test strips.

58. The kit of claim 52 further comprising a marking device for recording data.

59. A kit comprising a transfer device and the test strip of claim 1.

60. The kit of claim 59 further comprising a developing device.

61. The kit of claim 59 wherein the transfer device is a swab or a device for transferring liquid.

62. The kit of claim 60 wherein the developing device is a heat developing apparatus.

63. The kit of claim 60 wherein the developing device is an applicator for chemical developer.

64. The kit of claim 59 comprising multiple test strips.

65. The kit of claim 59 further comprising a marking device for recording data.

66. A test strip array comprising a non-sampling area and multiple sampling areas wherein each sampling area further comprises a sampling layer which can react with a target species to form or release a signal compound which is capable of effecting a reaction with silver halide to form a latent image, and a signal amplification layer comprising silver halide.

67. The test strip array of claim 66 wherein the sampling areas all detect the same target species.

68. The test strip array of claim 66 wherein the sampling areas can detect different target species.

69. The test strip array of claim 66 wherein each sampling area or a group of sampling areas is identified with prerecorded data.

70. The test strip array of claim 66 further comprising a protective layer covering all or a portion of the sampling areas.

71. The test strip array of claim 70 wherein there is more than one protective layer, each covering a portion of the sampling area.

72. The test strip array of claim 66 wherein the sampling areas are surrounded by the non-sampling area.

73. The test strip array of claim 70 wherein the protective layer is light blocking.

74. The test strip array of claim 70 wherein the protective layer or a portion thereof is removable.

75. The test strip array of claim 74 wherein the protective layer is light blocking.

76. The test strip array of claim 74 wherein the protective layer or a portion thereof is replaceable after being removed.

77. The test strip array of claim 66 further comprising prerecorded data which is visually readable and/or machine readable.

78. The test strip of claim 66 further comprising a blocking layer on the opposite side of the support from the sampling area.

79. The test strip array of claim 78 wherein the blocking layer on the opposite side of the support is light blocking.

80. The test strip array of claim 78 wherein the blocking layer on the opposite side of the support is removable.

81. The test strip array of claim 78 wherein the blocking layer on the opposite side of the support is replaceable after being removed.

82. The test strip array of claim 66 wherein the non-sampling area is suitable for recording data.

83. The test strip array of claim 66 wherein the support is opaque.

84. The test strip array of claim 66 wherein each sampling area further comprises an additional layer which blocks electromagnetic radiation which is capable of exposing the silver halide and which is located between the sampling layer and the silver halide amplification layer.

85. The test strip array of claim 66 wherein the signal compound can react with a secondary compound contained in the silver halide layer which can then react with the silver halide to form a latent image.

86. The test strip array of claim 66 wherein the signal compound can react with the silver halide to form a latent image.

87. The test strip array of claim 66 wherein the sampling layer also blocks electromagnetic radiation which is capable of exposing the silver halide.

88. The test strip array of claim 66 wherein the silver halide layer contains a dye image forming coupler.

89. The test strip array of claim 84 wherein the light-blocking layer is diffusible.

90. The test strip array claim 70 wherein the protective layer is diffusible to the target species.

91. The test strip array of claim 66 wherein the silver halide is sensitized.

92. The test strip array of claim 66 wherein the signal compound is capable of effecting a reaction through a chemical cascade.

93. The test strip array of claim 66 wherein the signal compound is formed through a chemical cascade reaction.

94. The test strip array of claim 84 wherein the signal compound is capable of effecting a reaction with the silver halide by reacting with the light-blocking layer to effect a reaction with silver halide to form a latent image.

95. The test strip array of claim 66 wherein the sampling layer and the signal amplification layer comprising silver halide are the same layer.

96. The test strip array of claim 66 wherein the target species is E. coli.

97. The test strip array of claim 66 wherein each sampling area further comprises a filter layer.

98. The test strip array of claim 66 wherein the silver halide amplification layer comprises silver halide that upon LIFCS exposure provides a latent image in exposed grains that are capable of acting as a catalyst for the subsequent formation of a silver image in a development step, (b) a non-LIFCS sensitive source of reducible silver ions, (c) a reducing composition for the reducible silver ions, and (d) a hydrophilic or hydrophobic binder.

99. The test strip array of claim 70 wherein the protective layer comprises a fixing or stopping agent.

100. The test strip of claim 2 wherein the protective layer comprises a fixing or stopping agent.

101. A method of detecting a target species comprising contacting all or a portion of the sampling areas of the test strip array of claim 66 with the material to be tested and allowing the silver halide to form a latent image.

102. The method of claim 101 further comprising the step of developing the latent image to form a detectable signal.

103. The method of claim 102 wherein the detectable signal is measurable.

104. The method of claim 102 wherein the latent image is developed by heat.

105. The method of claim 102 wherein the latent image is developed by chemical processing.

106. The method of claim 105 wherein the test strip array is developed in a conventional developing apparatus.

107. The method of claim 105 wherein the developer is applied using an applicator

108. The method of claim 102 further comprising reading the signal either visually or with a densitometer.

109. The method of claim 102 wherein the test strip is electronically scanned.

110. The method of claim 109 wherein the results of the electronic scan are analyzed using a computer.

111. The method of claim 102 wherein the test object is contacted with a transfer device and the transfer device is placed in contact with one or more sampling areas of the test strip array.

112. The method of claim 102 wherein multiple test objects are contacted with separate transfer devices and each transfer device is placed in contact with one or more sampling areas of the test strip array.

113. The method of claim 102 wherein the same test object is contacted with separate transfer devices and each transfer device is placed in contact with one or more sampling areas of the test strip array.

114. The method of claim 102 wherein the test strip array comprises a protective layer and the protective layer or a portion thereof is removed during testing and then replaced.

115. The method of claim 114 wherein the protective layer is light blocking.

116. The method of claim 102 wherein the test strip array further comprises a blocking layer on the opposite side of the support from the sampling areas and wherein the developed test strip is viewed through the support by removing the blocking layer.

117. The method of claim 116 wherein the blocking layer is opaque.